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Date

Anna M. Matthews

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.

10/749,444

Confirmation No.:

Applicant

Frederick T. Bauer et al.

Filed

December 31, 2003

TC/A.U.

:

Examiner

Docket No.

GEN10 P-300C

Customer No.

028,469

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97(b)

Dear Sir:

Pursuant to 37 CFR §§1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents listed on the attached Forms 1449A/PTO and 1449B/PTO. This Information Disclosure Statement is being filed more than three months after the filing date of the above referenced application but, to the undersigned's knowledge, before the mailing date of a first Office Action on the merits for the above referenced application.

A copy of each of the listed foreign patent documents and non-patent literature are attached. As the Office has waived the requirement under 37 CFR §1.98(a)(2)(i) for submitting a

Applicant

Frederick T. Bauer et al.

Appln. No.

10/749,444

Page

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copy of each cited U.S. patent and each U.S. patent application publication, a copy of each of the listed U.S. patents and each U.S. patent application publication document are not included with the submission of attached Form 1449A/PTO. Applicants respectfully request that the Examiner consider the listed documents and evidence that consideration by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If it should be determined that any of the listed documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 16-2463.

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10/749,444

Page

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5-6-2004

Respectfully submitted by,

Frederick T. Bauer et al.

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PTO/SB/08a (08-03)

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Application Number 10/749.444

Filing Date 12/31/2003

First Named Inventor Frederick T. Bauer

Art Unit

Examiner Name

Sheet 1 of 4 Attorney Docket Number GEN10 P-300C

| | | | U. S. PATENT | DOCUMENTS | |
|-----------------------|--------------------------|--|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ^{2 (# known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | ^{US-} 3,982,119 | 09/1976 | Aluzzo et al. | |
| | | US- 4,214,266 | 07/1980 | Myers | |
| | | ^{US-} 4,256,372 | 03/1981 | Yasukuni et al. | |
| | | ^{US-} 4,277,804 | 07/1981 | Robison | |
| | | ^{US-} 4,554,587 | 11/1985 | Ooi et al. | |
| · | | ^{US-} 4.580.196 | 04/1986 | Task | |
| | | ^{US-} 4,631,516 | 12/1986 | Clinker | |
| | | ^{US-} 4,647,975 | 03/1987 | Alston et al. | |
| | | US- 4,667,177 | 05/1987 | Athalye | |
| | | ^{US-} 4,734,697 | 03/1988 | Robinson et al. | |
| | | US- 4,863,130 | 09/1989 | Marks, Jr. | |
| | | ^{US-} 4,868,542 | 09/1989 | Thompson | |
| | | ^{US-} 4,891,624 | 01/1990 | Ishikawa et al. | |
| | | ^{US-} 4,893,112 | 01/1990 | Hatcher | |
| | | US- 4,896,136 | 01/1990 | Hotovy | |
| | | US- 4,910,591 | 03/1990 | Petrossian et al. | |
| | | ^{US-} 4,928,084 | 05/1990 | Reiser | |
| | | ^{US-} 5,027,200 | 06/1991 | Petrossian et al. | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | | |
|-----------|--------------------------|--|----------------|------------------|-----------------------------|---|----------------|--|--|--|
| Examiner | Cite | Foreign Pa | itent Document | Publication Date | Name of Patentee or | Pages, Columns, Lines, | | | | |
| Initials* | No. ¹ | No. ¹ Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) | | MM-DD-YYYY | Applicant of Cited Document | Where Relevant Passages or Relevant Figures Appear | T ⁶ | | | |
| | | GB | 2233530 | 09/1991 | | | | | | |
| | | DE | 29806638 | 04/1998 | | | X | | | |
| | | EP | 0244230 | 11/1987 | | | | | | |
| | | EP | 0417397 | 03/1991 | | | | | | |
| | | EP | 0573235 - | 12/1993 | | | | | | |

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Application Number 10/749,444

Filing Date 12/31/2003

First Named Inventor Frederick T. Bauer

Art Unit Examiner Name

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Sheet 2 of 4 Attorney Docket Number GEN10 P-300C

| , | | | | DOCUMENTS | |
|-----------------------|--------------------------|---|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ^{2 (if known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | ^{US-} 5,038,258 | 08/1991 | Koch et al. | |
| | | ^{US-} 5,121,200 | 06/1992 | Choi | |
| | <u></u> | ^{US-} 5,126,926 | 06/1992 | Chiang Wen | |
| | | ^{US-} 5,136,483 | 08/1992 | Schöniger et al. | |
| | | US- 5,143,433 | 09/1992 | Farrell | |
| | | ^{US-} 5,194,957 | 03/1993 | Kyuma | |
| | | ^{US-} 5,241,457 | 08/1993 | Sasjima et al. | |
| | | ^{US-} 5,260,731 | 11/1993 | Baker, Jr. | |
| | | ^{us-} 5,289,321 | 02/1994 | Secor | |
| _ | | ^{US-} 5.307.136 | 04/1994 | Saneyoshi | |
| | | ^{US-} 5,325,271 | 06/1994 | Hutchisson | |
| | | ^{US-} 5,371,659 | 12/1994 | Pastrick et al. | |
| | | ^{US-} 5,387,958 | 02/1995 | Pashley | |
| | | ^{US-} 5,414,461 | 05/1995 | Kishi et al. | |
| | | ^{US-} 5,471,515 | 11/1995 | Fossum et al. | |
| | | US- 5,477,436 | 12/1995 | Bertling et al. | |
| | | ^{US-} 5,490,049 | 02/1996 | Montalan et al. | |
| | | ^{US-} 5,495,243 | 02/1996 | McKenna | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | | |
|-----------|--------------------------|---|--------------|------------------|-----------------------------|---|----------------|--|--|--|
| Examiner | Cite | Foreign Pat | ent Document | Publication Date | Name of Patentee or | Pages, Columns, Lines, | | | | |
| Initials* | No.¹ | Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) | | MM-DD-YYYY | Applicant of Cited Document | Where Relevant Passages or Relevant Figures Appear | T ⁶ | | | |
| | | GB | 2313973 | 12/1997 | | | | | | |
| | | JP | 9-207664 | 08/1997 | | | X | | | |
| | | wo | 96 38319 | 12/1996 | | | | | | |
| | | wo | 97 17800 | 05/1997 | | | | | | |
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| | | | Application Number | 10/749,444 | · | |
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| | INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | First Named Inventor | Frederick T. Bauer | | |
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| | | | U. S. PATENT | DOCUMENTS | |
|-----------------------|--------------------------|---|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ^{2 (if known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | ^{US-} 5,550,677 | 08/1996 | Schofield et al. | |
| | | ^{US-} 5,555,069 | 09/1996 | Albrecht et al. | |
| | | US- 5,631,704 | 05/1997 | Dickinson et al. | |
| | | ^{US-} 5,646,614 | 07/1997 | Abersfelder et al. | |
| | | ^{US-} 5,670,935 | 09/1997 | Schofield et al. | |
| | | ^{US-} 5,680,123 | 10/1997 | Lee | |
| | | ^{US-} 5,699,044 | 12/1997 | Van Lente et al. | |
| | | ^{US-} 5,765,940 | 06/1998 | Levy et al. | |
| | | ^{us-} 5,798,691 | 08/1998 | Kao | |
| | | ^{US-} 5,895,115 | 04/1999 | Parker et al. | |
| | | US- 5,904,330 | 05/1999 | Manico et al. | |
| | | US- 5,938,717 | 08/1999 | Dunne et al. | |
| | | ^{US-} 6,038,496 | 03/2000 | Dobler et al. | |
| | | US- 6,115,651 | 09/2000 | Cruz | |
| | | US- 6.151.065 | 11/2000 | Steed et al. | |
| | | US- 6,175,300 | 01/2001 | Kendrick | |
| | | ^{US-} 6,246,933 | 06/2001 | Bagué | |
| | | ^{US-} 6,259,475 | 07/2001 | Ramachandran et al. | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|--------------------------|---|--------------------------------|--|---|----------------|--|--|--|--|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (<i>if known</i>) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | | | | |
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| | | | U. S. PATENT | DOCUMENTS | |
|-----------------------|--------------------------|---|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ^{2 (If known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| · | | ^{US-} 6,262,764 | 07/2001 | Perterson | · · |
| | | US- 6,304,173 US- 6,320,612 | 10/2001 | Pala et al. | |
| | | US- 6,320,612 | 11/2001 | Young | |
| | | US- | | | |
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| Examiner Initials* | Cite No. ¹ | Foreign Patent Document Country Code ³⁻ Number ⁴⁻ Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | Τ, | | | | |
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| Application Number | 10/749,444 | | | |
| Filing Date | 12/31/2003 | | | |
| First Named Inventor | Frederick T. Bauer | | | |
| Art Unit | | | | |
| Examiner Name | | | | |
| Attorney Docket Number | GEN10 P-300C | | | |

| | | NON PATENT LITERATURE DOCUMENTS | | | | | |
|-----------------------|--------------------------|---|--|--|--|--|--|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | | | |
| | | Patent Abstracts of Japan, Publication No. 06092184, Publication Dated Apr. 5, 1994, Application No. 04242151 entitled "Vehicle Rearward Checking Device," Applicant Chinon Ind Inc. | | | | | |
| | | Patent Abstracts of Japan, Publication No. 09030326, Publication Date Feb. 4, 1997, Application No. 07207630, entitled "Visual Recognition Device for Vehicle," Applicant Murakami Corp. | | | | | |
| | | Patent Abstracts of Japan, Publication No. 09320000, Publication Date Dec. 12, 1997, Application No. 08135617, entitled "Backward Information Detecting Device," Applicant Nippon Seiki Co. Ltd. | | | | | |
| | | Photographs of a CHMSL of a 1996 Chrysler Town & Country. | | | | | |
| | | Photographs of CHMSL of a 1995 Ford F150 Pickup Truck. | | | | | |
| | | Photographs of a CHMSL of a 1996 Chevy Blazer. | | | | | |
| | | Mendis, Sunetra K., "Low-Light-Level Image Sensor with On-Chip Signal Processing," SPIE, Vol. 1952, pp. 23-33. | | | | | |
| | | Fossum, Eric R., "Active Pixel Sensors: Are CCD's Dinosaurs?," SPIE, vol. 1990, pp. 2-14. | | | | | |
| | | Fossum, Eric R., "Low Power Camera-on-a-Chip Using CMOS Active Pixel Sensor Technology," 1995 Symposium on Low Power Electronics, Oct. 9-10, 1995 San Jose, CA, pp. 1-4. | | | | | |
| | | Yadid-Pecht, Orly et al., "Readout Schemes to Increase Dynamic Ranges of Image Sensors," NASA Tech Briefs, Jan. 1997, (2 pages). | | | | | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| STATI | STATEMENT BY APPLICANT | | | First Named Inventor | Frederick T. Bauer | | |
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| Sheet | 2 | of | 2 : | Attorney Docket Number | GEN10 P-300C | | |

| NON PATENT LITERATURE DOCUMENTS | | | | | |
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| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | Τ² | | |
| | | Yadid-Pecht, Orly et al., "Image Sensors With Individual Pixel Reset," NASA Tech Briefs, Nov. 1996, (2 pages). | | | |
| | | Patent Abstracts of Japan, Publication No. 09-207664, Publication Date Aug. 12, 1997, Application No. 08-017826, entitled "Vehicular Rear Confirmation Device," Applicant Fujitsu Ten Ltd. | | | |
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